UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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REALTIME DATA, LLC d/b/a IXO,	)	
	)	
Plaintiff,	)	Case No. 1:11-cv-6696-KBF
	)	1:11-cv-6701-KBF
vs.	)	1:11-cv-6704-KBF
	)	
MORGAN STANLEY, ET AL.,	)	JURY TRIAL DEMANDED
	)	ECF Case
Defendants.	)	
	)	

**STATEMENT OF UNDISPUTED MATERIAL FACTS IN SUPPORT OF
DEFENDANTS' MEMORANDUM OF LAW IN SUPPORT OF MOTION FOR
PARTIAL SUMMARY JUDGMENT OF INVALIDITY OF THE PATENTS-IN-SUIT
FOR FAILURE TO SATISFY THE DEFINITENESS AND WRITTEN DESCRIPTION
REQUIREMENTS OF 35 U.S.C. § 112**

1.   U.S. Patent No. 7,714,747 ("the '747 patent"), titled "Data Compression Systems and Methods," was filed on January 8, 2007 and issued by the PTO on May 11, 2010. The '747 patent identifies an application filed in 1998 under the heading "Related U.S. Application Data." Ex. A, '747 Patent.

2.   U.S. Patent 7,777,651 ("the '651 Patent"), titled "System and Method for Data Feed Acceleration and Encryption," was filed on June 2, 2008 and issued August 17, 2010. The '651 patent identifies an application filed in 2000 under the heading "Related U.S. Application Data." Ex. B, '651 Patent.

3.   Realtime asserts that the '747 patent has priority to a patent application originally filed on October 29, 2001. Realtime's Opening Markman Br. at 1.

4.   Realtime asserts that the '651 patent has priority to the May 7, 2003 patent application that led to U.S. Patent No. 7,417,568. Realtime's Opening Markman Br. at 1.

5.   Realtime has taken the position that the alleged inventions of the asserted claims can claim priority back to applications filed "no later than 2001." Realtime's Opening Markman Br. at 1.

6.   The '651 patent discusses decompression at col. 6, line 66 through col. 7, line 61.

7.   The '747 patent discusses decompression at col. 14, line 39 through col. 15, line 49.

8.   When the '747 patent application was filed on January 8, 2007, the inventors described the invention as follows

> "The present invention is directed to systems and methods for providing fast and efficient data *compression* using a combination of content independent data *compression* and content dependent data *compression*." '747 Patent, col. 3:43-46 (emphasis added).

9.   The specification of the '747 patent never uses the term "content dependent data decompression." *See* Ex. A, '747 Patent.

10.   The specification of the '651 patent never uses the term "content dependent data decompression." *See* Ex. B, '651 Patent.

11.   The specification of the '747 patent only once uses the term "content independent data decompression." *See* Ex. A, '747 Patent, col. 5:45-47 (noting that Figure 11 "is a block diagram of a content independent data decompression system").

12.   The specification of the '651 patent only once uses the term "content independent data decompression." *See* Ex. B, '651 Patent, col. 5:66-67 (noting that Figure 6 of the '651 patent "is a diagram of a system/method for providing content independent data decompression").

13.   The word "decompression" does not appear in the "Summary of the Invention" of the '747 patent. *See* Ex. A, '747 Patent, col. 3:40-5:2.

14.   As shown in Figure 13A of the '747 patent, "if a data type of the data block is identified," a "content dependent data compression" procedure is used (*Id*. at col. 3:53-54, 4:46-47; *see also id.* at col. 28:36-44); the recognized data block is sent to, and if possible is encoded by, what are believed to be the appropriate ones of the system's "D" encoders. *See id.* at col. 16:12-39.

15.   If the system cannot identify the type of a block of data to be transmitted, a "content independent data compression" procedure is used. *See* Ex. A, '747 Patent, col. 3:55-56, 4:53-54); the unrecognized data block is sent to, and if possible encoded by, each of the system's "E" encoders. *See id.* at col. 8:10-12, 9:57-59, 11:7-9.

16.   An encoder may include multiple encoding or compression algorithms, each of which is capable of encoding or compressing an unencoded or uncompressed data block. Declaration of James Storer ("Storer Decl.") ¶44.

17.   Figure 13A of the '747 patent shows that there are different data flows for potentially compressing data blocks whose content type is recognized by the system and data blocks whose content type is not recognized by the system (i.e., the "yes" and "no" paths following the determination made in block 1300). Ex. A, '747 Patent, FIG 13A.

18.   After the encoding process, the system described in the '747 patent determines what level of compression (i.e., "compression ratio") was achieved by each encoder that was able to encode the data block, as shown in Figure 13B below. Ex. A, '747 Patent, col. 18:24-39.

19.   Block 1340 of Figure 13B of the '747 patent shows that the system determines the compression ratio regardless of whether the data block is encoded by the content dependent "D" encoders or by the content independent "E" encoders. Ex. A, '747 Patent, FIG 13B.

20.   The system of the '747 patent determines what level of compression was achieved by each "D" or "E" encoder that was able to compress a data block, and outputs the compressed data with an appropriate "descriptor." Ex. A, '747 Patent, col. 18:46-19:7.

21.   The type of descriptor the system appends to a data block depends on whether a desired level of compression was achieved, as also shown in Figure 14C. *See also* Ex. A, '747 Patent, col. 18:46-18:63.

22.   If a desired "threshold" level of compression is achieved, the system appends an "encoding descriptor" (block 1424 in Figure 14C) to the most highly compressed data block to indicate what compression algorithm was used to achieve that level of compression. *Id.*

23.   The descriptor identifies what compression algorithm was used to compress the data block. "A data compression type descriptor is defined as any recognizable data token or descriptor that indicates which data encoding technique has been applied to the data." Feit Decl., Ex. A, '747 Patent, col. 18:63-66.

24.   The descriptor does not identify what particular encoder was used or whether the encoder using that algorithm was a "D" or "E" encoder. *See, e.g.*, Feit Decl., Ex. A, '747 Patent, col. 16:25-39 (describing "content dependent" compression); *id.* at col. 16:40-53 (describing "content independent" compression).

25.   "D" and "E" encoders can use the same encoding techniques, "such as run length, Huffman, Lempel-Ziv Dictionary Compression, arithmetic coding, data compaction, and data null suppression." Feit Decl., Ex. A, '747 Patent, col. 3:3-7; 14:63-67

26.   If "there are no encoded data blocks having a [sufficiently high] compression ratio," then a different type of descriptor is used. The appended descriptor is a "null compression type" descriptor "that indicates that no data encoding has been applied to the input data block." And "the original **unencoded** input data block is selected for output." *See, e.g.,* Feit Decl., Ex. A, '747 Patent, col. 8:34-47 (emphasis added)

27.   "A descriptor extraction module receives the … input data block …[and] *use[s] methods known to those skilled in the art* to extract the data type compression type descriptor associated with the data block." Feit Decl., Ex. A, '747 Patent, col. 14:49-54.

28.   If the received data block was encoded, "the data compression type descriptor is determined to be any value other than null…, [and] the corresponding decoder or decoders are then selected." *Id.*

29.   According to claims 1 and 8 of the '747 patent and claim 1 of the '651 patent, the selection of the decoder to be used to decompress a particularly compressed data block is "based on the descriptor." Feit Decl., Ex. A, '747 Patent, Figure 11, 12; Feit Decl., Ex. B, '651 Patent, Figure 6.

30.   The system of the patents have only one set of decoders. *See* Feit Decl., Ex. A, '747 Patent, Fig. 11; '651 Patent, Fig. 6

31.   A decoder may include multiple encoding or compression algorithms, each of which is capable of decoding or decompressing an encoded or compressed data block. Declaration of James Storer ("Storer Decl.") at ¶44.

32.   "If the data compression type descriptor is determined to be null," then the data block was not compressed and **no decoding** is applied to the input data block and the original unencoded data block is output." Feit Decl., Ex. A, '747, col. 15:22-30 (emphasis added).

33.   Neither the algorithm nor the descriptor indicates whether the compression algorithm was identified using a "content dependent data compression" procedure (i.e., was an algorithm used by one of the "D" encoders) or "content independent data compression" procedure (i.e., was an algorithm used by one of the "E" encoders). Feit Decl., Ex. A, '747 Patent, col. 18:63-66.

34.   Both a data block that was compressed using an algorithm found using a "content dependent data compression" procedure and one compressed using an algorithm found using a "content independent data compression" procedure may have been encoded using the same algorithm, e.g., a Huffman, Lempel-Ziv Dictionary Compression, arithmetic coding, data compaction, or data null suppression compression algorithms. Feit Decl., Ex. A, '747 Patent, col. 3:3-7; 14: 63-67.

35.   The descriptor does not indicate whether the encoder having that algorithm was selected based on whether the system did or did not recognize the type of data to be compressed. Storer Decl. ¶ 24.

36.   The phrase "content independent data decompression" is not a term with a known meaning to persons of skill in the field of data compression. Storer Decl. ¶ 34.

37.   The phrase "content dependent data decompression" is not a term with meaning to persons of skill in the field of data compression. *Id.*

38.   The correct data decompression algorithm is not determined based on whether "content dependent data compression" or "content independent data compression" were previously used to compress the data. Feit Decl., Ex. A, '747 Patent, col. 18:36-66, FIG14A.

39.   The decompression algorithm used to decode or decompress data must include the reverse of the algorithm that was used to encode or compress the data. Storer Decl. ¶ 32.

40.   The descriptor described in the '747 patent does not indicate whether a "content dependent data compression" or a "content independent data compression" procedure was employed to find the compression algorithm that eventually was actually used to compress the data block. Feit Decl., Ex. A, '747 Patent, col. 18:63-66.

41.   The descriptor does not indicate whether a "D" or an "E" encoder applied the compression algorithm that provided the highest level of compression of a data block output to the decoder. Storer Decl. ¶ 24.

42.   "If the data compression type descriptor is determined to be null, ...then <u>no decoding is</u> applied to the input data block and the original undecoded data block is output." *See* Feit Decl., Ex. A, '747 Patent, col. 15:22-25.

43.   The specification states that the decompression algorithm applied to a compressed data block is selected based on the compression technique identified by the descriptor. Feit Decl., Ex. A, '747 Patent, FIG 12, col. 14:39-15:49, 18:63-66.

44.   A single decoder may use any one of a number of decompression techniques, i.e. decompression algorithms or methods. Similarly, a single encoder may use any one of a number of algorithms or methods to compress or encode a data block. Storer Decl. ¶ 44.

45.   One of ordinary skill in the art would understand that a lossless decoder that decompresses a compressed data block utilizes an algorithm that is substantially the reverse of the algorithm used to compress the data in the uncompressed data block. Storer Decl. ¶ 48.

46.   Examining a data block to determine if an encoder system identifies the type of data in the data block does not compress any data in the data block. Storer Decl. ¶¶ 20- 22, 36, Feit Decl., Ex. A, '747 Patent, FIG. 14A.

47.   Sending to an encoder a data block the type of data in which has been identified by an encoder system does not compress any data in the data block. Storer Decl. ¶¶ 20-22, 36. Feit Decl., Ex. A, '747 Patent, col. 8:9-11, FIG. 14A.

48.   Sending to an encoder a data block the type of data in which has not been identified by an encoder does not compress any data in the data block. Storer Decl. ¶¶ 20-22, 36, Feit Decl., Ex. A, '747 Patent, col.16:21-24. FIG. 14A,

49.   "Content dependent data compression" and "content independent data compression" are not compression techniques or algorithms. Storer Decl. ¶ 36.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that a true and correct copy of the foregoing document was served electronically on April 4, 2012 on all counsel of record.

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